



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Harry E. Emerson, III, et al.      Group Art Unit: 2162  
Serial No.: 09/477,936      Examiner: James W. Myhre  
Filed: January 5, 2000  
For: **SYSTEM FOR MODIFYING AND TARGETING ADVERTISING  
CONTENT OF INTERNET RADIO BROADCASTS**  
Docket No.: 0021-46

December 20, 2004


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**REPLY BRIEF FOR APPELLANTS**

This Reply Brief is submitted pursuant to 37 C.F.R. 41.41 [formerly 37 C.F.R. 1.193 (b)(1)] and is in response to the Examiner's Answer dated October 27, 2004 in the pending appeal of the above-identified application. This Reply Brief is transmitted in triplicate. It is submitted that no fee is due in connection with the filing of the instant Reply Brief.

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### **Grouping of Claims**

By way of the Brief for Appellants filed July 13, 2004, appellants proposed the following grouping of claims:

Claims 1 and 2 stand or fall together.

Claims 3, 4, and 7 stand or fall individually.

Claims 8 to 9 stand or fall together.

The Examiner has recommended that the claim grouping of the final rejection be maintained as follows:

Group I:	Claims 1 and 7
Group II:	Claim 2
Group III:	Claim 3
Group IV:	Claims 4, 8, and 9.

Applicant/appellants accept the Examiner's proposed claim grouping.

**Response to Arguments in Examiner's Answer**

Applicants respectfully note that Section (10) – Grounds of Rejection of the Examiner's Answer (pages 3 – 8) repeats verbatim the Final Rejection dated November 18, 2003, from which the present appeal is taken. Applicant/appellants have responded to these grounds in the Brief For Appellants. The following additional remarks are filed with reference to the Examiner's Answer.

Applicants respectfully traverse the Examiner's reading of Chen et al. (page 8) as using a network television broadcast as being merely one exemplary use of "splicing a secondary packetized data stream, such as a commercial, with a primary packetized data stream." Col. 4, lines 7-9.

In particular, applicant/appellants' previous assertion that Chen et al. is directed solely to "insertions made in a digital video stream" remains uncontroverted. The Examiner has not pointed to any disclosure or suggestion in Chen et al. that any insertion be made in a data stream other than a digital video stream. While the claims of Chen et al. admittedly do not contain the actual word "video," it is established law that the disclosure of a reference must be read in its totality. It is maintained that Chen et al. is devoid of any disclosure or suggestion of embodiments other than the insertion of data in a digital video stream transmitting network television programs, and accordingly, would not be read by a person of ordinary skill in the expansive manner proposed. The Examiner has pointed to col. 4, lines 39-43 and 57-59 for the proposition that audio messages from digital audiotapes or compact audio disks, or other messages may be spliced into a program stream. However, the Examiner has wrested these quotations from their context, in each case omitting mention of network television programs as

the underlying transmitted program content, into which messages are to be spliced. In particular, applicants point to the particular disclosures in the Chen et al. reference that are cited by the Examiner, but in their fuller context as set forth below:

“The storage unit may include a digitized library of advertisements (e.g., commercials) which are available to insert into the network television program. The storage unit 135 may include digital audio tapes (DATs), digital video disks (DVDs), compact audio discs (CDs) or other magnetic or optical storage media.” (Col. 4, lines 39-44, emphasis added.)

“Of course, while the embodiment of FIG. 1 is particularly suited for the insertion of advertisements into a network television program, there are many other useful applications, including the insertion of educational programming, emergency messages such as weather bulletins, informational messages from the cable system operator, and the like. Furthermore, audio only or data only messages may be inserted into the main packetized data stream.” (Col. 4, lines 51-59, emphasis added.)

Clearly, both of these passages, on which the Examiner relies, refer to insertions into network television programs. Applicants respectfully reiterate that there is no disclosure or suggestion in Chen et al., nor has the Examiner provided any reference to any, that goes beyond network television. The Examiner’s proposed motivation for the required reconstruction of Chen et al. to involve an audio-only data stream is based on the assertion that “the packetized data stream into which Chen is inserting commercials could contain either audio/video data (i.e. television) or only audio data (i.e. radio).” Page 4, last line and page 5, first line, emphasis added. However, as set forth above, Chen et al. contains no actual disclosure of an audio-only primary packetized data stream. The entirety of Chen et al.’s disclosure, beginning with the title of the invention [“Splicing Compressed Packetized Digital Video Streams” (emphasis added)] and continuing throughout, is directed solely to insertions made in a digital video stream of the type used in a cable television system, the Examiner has nonetheless alleged that the Chen et al.

disclosure applies to an Internet-based audio radio system, based on his identification of radio broadcasts received by the Internet as being “packetized data streams.” The mere fact that the packetized data stream “could” be an audio-only stream is submitted to fall far short of the required standard for the proposed modification and reconstruction, and to evidence reliance on an improper “obvious to try” standard. [“The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.” *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ 2d 1780 (Fed. Cir. 1992), quoting *In re Gordon*, 733 F.2d at 902, 221 USPQ at 1127 (Fed. Cir. 1984)]. In the present instance, it is submitted that the Examiner in fact has used applicants’ own disclosure as the template for hindsight reconstruction, in particular for finding in Chen et al. the phantom audio-only data stream within which commercials are to be replaced.

It is respectfully submitted that the Examiner’s attempt to find in Chen et al. the delivery of a packetized data stream comprising Internet radio is, at best, strained. The Examiner has pointed (at page 9, penultimate line) to Chen et al.’s Fig. 1, and the Internet gateway 106 therein depicted. Significantly, the only occurrence of the word “Internet” in Chen et al. is at col. 4, line 21, and correspondingly in Fig. 1. The Examiner has also pointed to PC 174 in Fig. 1. However, despite the Examiner’s observation that some cable television systems provide Internet access, there is no indication in Chen et al. that any connection to PC 174 is established as an Internet connection. Applicant/appellants maintain that one of ordinary skill in the art would understand bidirectional communication to be inherent in the Internet connection employed in the claimed method that employs an Internet hosting service. For example, the verb “host” is relevantly defined as “To provide services to client computers than connect from remote locations – for

example to offer Internet access or to be the source for a news or mail service.” *Microsoft Computer Dictionary, Fifth Edition*, 2002, at 256. The bidirectionality of applicants’ method and system is further signaled by the word “interactive” in the preamble of independent claims 1 and 7.

At page 11, last five lines, the Examiner comments regarding the progress of Internet technology. Appellants respectfully submit these comments should be disregarded. The Examiner is apparently attempting, at this stage of the present proceedings, to introduce and rely on personal knowledge as prior art, which knowledge is not part of the prior art of record and not substantiated by any reference to a prior art patent or other printed or publicly known disclosure. Moreover, the Examiner’s purported experience, although possibly indicative of the present state of the art, is not relevant to consideration of the state of the art as of the filing date (January 5, 2000) of the instant application. Accordingly, it is submitted that such knowledge is not pertinent, and should not be considered in the present appeal proceeding. Furthermore, the intrusion of such personal knowledge, of unknown but probably recent date, all the more raises the specter that hindsight reconstruction is operative in the present obviousness determination. The indication that “As new technology emerges, such as the recent debut of digital television lines...” (page 12, lines 1-2) represents even further the retrospective lens through which the Examiner is apparently viewing the claimed subject matter.

It is respectfully submitted that the Examiner has misconstrued the applicant/appellants’ argument concerning the comparison of the lengths of broadcast and replacement commercials. See page 12, first full paragraph of the Examiner’s Answer. At set forth by appellants beginning with the first full paragraph of page 12 of the July 13, 2004 Brief for Appellants, Chen et al.

discloses some embodiments wherein the cable distribution system itself provides insertion time signals. [See, e.g., col. 2, lines 19-25, along with reference numeral 310 in Fig 3 and the definitions of T<sub>in</sub> and T<sub>out</sub> at col. 6, line 66, to col. 7, line 2.] In other instances, in which a T<sub>in</sub> marker is provided in the incoming compressed MPEG data, the system has no prior knowledge of the commercial length. Thus, the comparison required, e.g. by feature (k) of present claim 1 inherently cannot be made, because reading step (j) cannot be accomplished.

Applicant/appellants also traverse the Examiner's assertion that "both Capek and Wachob also disclose determining the duration of commercial opportunities" (page 12). Significantly, that duration time is required for carrying out step (k) of claim 1. As set forth beginning at the last line of page 13 of the Brief for Appellants, it is maintained that Capek inherently cannot be read as disclosing a duration of an extant broadcast commercial, because Capek has no disclosure or suggestion of even the presence of such a commercial, and *a fortiori* provides no intention to replace a commercial. Instead of replacement of program content, Capek discloses only opportunistic insertion of content in time intervals that are unintentionally present and due only to the vagaries and delays of Internet data traffic. The Examiner's use of the word "opportunities" is further revealing. While a delay due to network traffic may be seen by Capek as an opportunity, applicant/appellants' claims are not directed to an opportunity, but to the replacement of actual original commercials, whose inclusion in the Internet radio data stream is certain, not potential. The purported disclosure of Capek is thus submitted to be completely inapposite to applicants' method, because it relies on unpredictable factors and carries a high probability of inappropriate disruption of program content, as applicant/appellants have argued at page 20, lines 1-6, of the July 13, 2004 Brief for Appellants. For the advertiser, even the

possibility of an inappropriate disruption is feared, lest a product or service advertised become negatively associated with the disruption. Such a prospect would weigh strongly against a motivation to employ the Capek teaching, since the intrusion would be completely counterproductive to the advertiser's aspiration to beneficially influence potential customer behavior and generate business.

With respect to the Examiner's discussion at pages 13 – 15 concerning the features of each of the references which are allegedly obviously combined and modified to produce the instant invention, applicant/appellants maintain their argument that the combination reflects hindsight reconstruction. The Examiner has proposed the analogy of disclosure of different mechanisms for bill paying. It is submitted the analogy is defective. The situation the Examiner proposes is one in which three embodiments are obvious alternatives to carry out the same function, i.e. the payment of bills. Clearly only one embodiment is necessary, and different bills might well be paid using different ones of the proposed payment modalities.

On the other hand, the Examiner's own answer on page 14 reveals that the combination he proposes is not a selection among clearly disclosed alternatives for a particular feature, but the selection even of which features to include in a combination, in order to find disclosure of the claimed invention. Significantly, he admits that he proposes Chen et al. for determining when to insert a commercial, and Capek et al. for determining which commercial to insert. The conclusory statement that "Thus, the three references are all attempting to solve a known problem of inserting a commercial into a broadcast data stream" (page 14, last two lines), demonstrates the inadequacy of the proposed combination, even if proper, for rendering the present invention obvious. Contrary to the Examiner's formulation, applicants' claims do not



call for “insertion,” but rather for “substituting selected digitized radio commercial streams in place of said broadcast commercial stream.” The Examiner’s position (page 15, line 1) regarding bodily incorporating Capek into Chen et al. is submitted, once again, to be a reconstruction based on applicants’ own disclosure as a template.

While agreeing with the premise that “references must be read as a whole and consideration must be given where the references diverge and teach away from the claimed invention,” the Examiner has nonetheless asserted that it is not necessary that “all of the individual parts of each reference must be compatibly combinable.” Applicant/appellants respectfully submit that this alleged justification, even if correct, does not mitigate the argument in the Brief for Appellants concerning the combination of Capek et al. with Chen et al. More specifically, it is submitted that the opportunistic insertion of program content taught by Capek et al. is no mere optional feature, but is, instead, taught as an essential element of the disclosed invention, and no other form of insertion is disclosed or suggested. It is respectfully submitted that the Examiner has incorrectly represented applicant/appellants’ argument in the statement “Appellant’s argument that bodily incorporating Capek into Chen would render Chen inoperable because it would randomly insert commercials in the middle of broadcast content (e.g. a song) would be valid if one completely replaced all of the disclosure of Chen with Capek’s disclosure, but then one would have the Capek patent, not the Chen patent” (page 15, lines 1-5). The portion of the Brief For Appellants to which the Examiner apparently refers differs in a crucial respect: “Applicants respectfully maintain that any method practiced in light of the combined teachings of the cited references must therefore be presumed to include the Capek et al. insertion step. That insertion step would trigger insertion of commercials at random times.” (Page 21,

second paragraph, original emphasis deleted, new emphasis added). Whereas the Examiner's argument is apparently based on a selective incorporation of certain features of Capek et al. into Chen et al., applicant/appellants have argued based on the combined teachings of the cited references. It is respectfully submitted that the former is an incorrect formulation of the established law. ["If references taken in combination would produce a 'seemingly inoperative device,' we have held that such references teach away from the combination and thus cannot serve as predicates for a prima facie case of obviousness." *McGinley v. Franklin Sports Inc.*, 262 F.3d 1339, 1354, 60 USPQ 2d 1001, 1010 (Fed. Cir. 2001), emphasis added, citing *In re Sponnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244, 56 C.C.P.A. 823 (1969).] Applicant/appellants maintain that the instant method and system must be compared with an embodiment constructed in accordance with the teaching of the references applied, taken as a whole, and that in the present instance, the inclusion of the teaching of Capek et al. in the combination proposed and taken as a whole, for all they teach, would lead one to require the random insertion feature. Exclusion of such a feature implicitly but impermissibly uses applicants' own disclosure as a template in hindsight.

The Examiner has responded to applicant/appellants' argument (page 23 of the Brief For Appellants) concerning the cumbersomeness of the Wachob et al. system by indicating that the argument is not directed to the claimed subject matter, but rather to the reasons why a person may select one type of delivery system over another (page 15). Applicant/appellants respectfully disagree. The following statement appears on page 22 of the Brief for Appellant:

"In the method delineated by present claims 1-4 and 7-9, a program with replacement commercials interspersed therein is assembled, e.g. by an Internet Service Provider, and disseminated via the Internet. By way of contrast, the Wachob process requires simultaneous dissemination of multiple commercials through a cable system to

hardware associated with each user. Typically such hardware is located on each user's premises."

The statement to which the Examiner refers is a conclusion to the argument that follows the foregoing quotation, as signaled by the word "thus." ["Wachob's system is thus much more cumbersome than applicant's method." emphasis original.] Applicant/appellants maintain the correctness of this statement. In the Wachob system, the data transmitted, e.g. to a user's home, must include multiple television channels that are distributed by a cable television system and received and converted using converter 10 of Fig. 1. Each possible commercial requires a full channel, so the bandwidth between the cable system headend and the user's premises must be sufficient to simultaneously accommodate all the transmitted channels, even though the user views only one channel at a time. In the present system, however, the transmission between the Internet hosting service and the user's premises and computer need only accommodate a single channel of Internet radio broadcast. Clearly, transmission of a single channel requires less bandwidth than multiple channels, as applicant/appellants argued. If, incidentally, the user's Internet connection provides more bandwidth than needed for transmitting the single required channel, the excess can be used for other purposes. For example, the user may choose to simultaneously listen to Internet radio program content and do other work requiring independent uploading and downloading of other Internet data content.

It is further submitted that the cumbersomeness of the Wachob et al. system is highly pertinent to the question whether a person of ordinary skill would be motivated to combine Wachob et al. with the other references applied in the instant matter.

With respect to applicant/appellants' argument regarding Wachob's brute-force approach, it is respectfully submitted that the Examiner has again mischaracterized the argument given (see page 19, lines 7-9, of the Examiner's Answer). In context, applicant/appellants made the following statement:

"While Wachob suggests the possibility of selecting advertising based on a viewer's demographics, the implementation provided relies on a brute-force approach of distributing plural commercials to a user's premises and only there selecting which of a relatively few choices is to be provided only after the complication and expense of distribution has already been incurred." Page 28, original emphasis removed, new emphasis added.

The Examiner's reading, however, misrepresents the foregoing statement by indicating that it is the selection, not the distribution, that is accomplished by a brute-force approach:

"The Appellant's argument that the Wachob disclosure "of selecting advertising based on the viewer's demographics" using "a brute-force approach" (page 28) is once again arguing features not present in the claims.." Page 19, lines 7-9, emphasis original.

It is submitted that the Examiner's reading is clearly precluded by the grammar of the quoted statement, there being only one noun ("approach") that the prepositional phrase "of distributing" can modify. Applicant/appellants maintain the correctness of the argument that the Wachob distribution is "brute-force," inasmuch as the system disclosed by Wachob distributes every advertisement that may be viewed by a user to every subscriber in a given cable television system. It is further submitted that the argument is correctly directed to claimed features, the Examiner's assertion notwithstanding, inasmuch as claim 4 recites the selection of a commercial targeted to a particular user, and it is that replacement commercial that is to be substituted in the Internet radio program stream according to feature (m) of claim 1. Clearly, a method requiring simultaneous transmission of multiple commercials to a user's premises, only one of which will

ultimately be viewed, is a brute-force approach in comparison to applicant's system, wherein the replacement is accomplished at an earlier point in the distribution, so that only the actual advertisement to be provided need be transmitted to the user's premises.

With respect to claim 2, applicant/appellants maintain that claim 2, being dependent from claim 1, is patentable over Chen, Wachob, and Capek for at least the reasons already delineated in the Brief for Appellant, along with the remarks set forth hereinabove.

With respect to claim 3, applicant/appellants maintain that claim 3, being dependent from claim 1 through intervening claim 2, is patentable over Chen, Wachob, and Capek for at least the reasons delineated in the Brief for Appellant, along with the remarks set forth hereinabove. In addition, it is submitted that the Examiner's remarks, found at page 17, lines 3-8, should be discounted as another intrusion of personal knowledge, unsubstantiated by any reference to the art of record, and of uncertain date.

With respect to claims 4, 8, and 9, applicant/appellants submit that even if the Chen et al. system were taken as providing bidirectional connectivity, there is no disclosure or suggestion that such bidirectional connectivity is used in the determination of demographically targeted and distributed ads. The Examiner has pointed to the 1989 date of Wachob in regard to return paths (page 19, line 1). Applicants submit that the availability of Wachob long before the filing of Chen et al. strongly supports the non-obviousness of the subject matter of claims 4, 8, and 9. Even in light of Wachob, there is no disclosure or suggestion in Chen et al. of the use of demographically targeted advertising, let alone in the context of Internet radio.



## CONCLUSION

In light of the foregoing remarks, it is respectfully submitted that the interactive method for substituting replacement radio commercials in place of a plurality of broadcast radio commercial streams on an Internet radio program of claim 1, and the interactive system for substituting broadcast commercial streams of an Internet radio program stream, with replacement commercial streams of claim 7 are not disclosed or suggested by any combination of the art applied and meet the conditions for patentability. It is further submitted that claims 2-4 dependent from claim 1 and claims 8-9 dependent from claim 7, are patentable for at least the same reasons as their respective base claims.

Reversal of the rejection of claims 1-4 and 7-9 under 35 USC §103(a), and allowance of the present application, are earnestly solicited.

Respectfully submitted,

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